

AMENDMENTS TO THE CLAIMS

The following is a complete listing of revised claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (Currently Amended) A computer readable medium having a data structure for managing reproduction of ~~at least~~ video data having at least one ~~multiple~~ reproduction path ~~video~~ data recorded on the computer readable medium, comprising:

a data area for storing clip files of at least a video data ~~stream~~, each clip file associated with one of a ~~common~~ portion common to the reproduction ~~paths~~ portion and a portion specific to a particular reproduction path among the reproduction paths of the video data portion of the video data stream; and

a management area, separated from the data area, for storing management information for managing reproduction of ~~the~~ the video data ~~stream~~, the management information including an information file associated with each clip file, each information file for providing a map for the associated clip file, each map for mapping presentation time information to address information for the associated clip file.

2. (Previously Presented) The computer readable medium of claim 1, wherein the clip files are interleaved.

3. (Previously Presented) The computer readable medium of claim 2, wherein the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions.

4. (Previously Presented) The computer readable medium of claim 2, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

5. (Previously Presented) The computer readable medium of claim 4, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

6. (Previously Presented) The computer readable medium of claim 5, wherein more than one clip file is associated with a same one of a common reproduction path portion and a particular reproduction path portion when the one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

7. (Previously Presented) The computer readable medium of claim 2, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

8. (Previously Presented) The computer readable medium of claim 7, wherein more than one clip file is associated with a same one of a common reproduction path portion and a particular reproduction path portion when the one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

9. (Previously Presented) The computer readable medium of claim 1, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

10. (Previously Presented) The computer readable medium of claim 1, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

11. (Previously Presented) The computer readable medium of claim 10, wherein more than one clip file is associated with a same one of a common reproduction path portion and a particular reproduction path portion when the one of the common reproduction path portion and the particular reproduction path portion includes data exceeding a clip file size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

12. (Currently Amended) A method of recording a data structure for managing reproduction of ~~at least~~ video data having at least one ~~multiple~~ reproduction path ~~video data~~ on a recording medium, comprising:

recording clip files of at least a video data ~~stream~~ in a data area of the recording medium, each clip file associated with one of a ~~common~~ portion ~~common to the reproduction paths~~ portion and a portion specific to a particular reproduction path ~~among the reproduction paths~~ portion of the video data stream; and

recording management information in a management area separate from the data area, the management information for managing reproduction of the video data ~~stream in a management area of the recording medium, the~~ management information including an information file associated with each clip file, each information file for providing a map for the associated clip file, each map for mapping presentation time information to address information for the associated clip file.

13. (Currently Amended) A method of reproducing a data structure for managing reproduction of ~~at least~~ video data having at least one ~~multiple~~ reproduction path ~~video data~~ recorded on a recording medium, comprising:

reproducing clip files of at least a ~~video data stream~~ from the recording medium, each clip file associated with one of a portion common to the reproduction paths and a portion specific to a particular reproduction path

among the reproduction paths a common reproduction path portion and a particular reproduction path portion of the video data stream; and

reproducing management information from the management area separate from the data area, the management information for managing reproduction of the video data stream from a management area of the recording medium, the management information including an information file associated with each clip file, each information file for providing a map for the associated clip file, each map for mapping presentation time information to address information for the associated clip file.

14. (Currently Amended) An apparatus for recording a data structure for managing reproduction of ~~at least~~ video data having at least one ~~multiple~~ reproduction path video data on a recording medium, comprising:

an optical recording deviceunit configured to record data on the recording medium;

an encoder ~~for~~configured to encodeing at least video data having at least one ~~multiple~~ reproduction path video data; and

a controller, coupled to the optical recording unit, ~~for~~configured to controlling the optical recording deviceunit to record clip files of at least a video data ~~stream~~ output from the encoder in a data area of the recording medium, each clip file associated with one of a portion common to the reproduction paths and a portion specific to a particular reproduction path among the reproduction paths~~one of a common reproduction path portion and a particular reproduction~~

~~path portion of the video data stream, the controller~~ling for~~configured to~~
~~controlling the optical recording device~~unit to record management information
in a management area separate from the data area, the management
information for managing reproduction of the video data ~~stream~~in a
~~management area of the recording medium, the management information~~
including an information file associated with each clip file, each information file
for providing a map for the associated clip file, each map for mapping
presentation time information to address information for the associated clip
file.

15. (Currently Amended) An apparatus for reproducing a data structure for
managing reproduction of ~~at least~~video data having at least one ~~multiple~~
reproduction path video data recorded on a recording medium, comprising:
an optical reproducing ~~device~~unit configured to reproduce data recorded
on the recording medium;
~~a controller, coupled to the optical reproducing unit, for~~configured to
controlling the optical reproducing ~~device~~unit to reproduce clip files of at least
a video data ~~stream~~ from the recording medium, each clip file associated with
one of a portion common to the reproduction paths and a portion specific to a
particular reproduction path among the reproduction paths ~~one of a common~~
~~reproduction path portion and a particular reproduction path portion of the~~
~~video data stream, the controller~~ forconfigured to controlling the optical
reproducing ~~device~~unit to reproduce management information for managing

reproduction of the video data ~~stream~~ from a management area -of the recording medium, the management ~~information~~ area being separate from the data area, the management information including an information file associated with each clip file, each information file for providing a map for the associated clip file, each map for mapping presentation time information to address information for the associated clip file.

16. (Previously Presented) The computer readable medium of claim 3, wherein only one clip file is associated with each particular portion representing a same time period of the video data ~~stream~~.

17. (Currently Amended) The computer readable medium of claim 16, wherein the video data ~~stream~~ is represented by packets; and each map maps presentation time stamps to packet addresses.

18. (Currently Amended) The computer readable medium of claim 1, wherein the video data ~~stream~~ is represented by packets; and each map maps presentation time stamps to packet addresses.

19. (Previously Presented) The method of claim 12, wherein the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions.

20. (Previously Presented) The method of claim 12, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

21. (Previously Presented) The method of claim 12, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

22. (Previously Presented) The method of claim 13, wherein the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions.

23. (Previously Presented) The method of claim 13, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

24. (Previously Presented) The method of claim 13, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

25. (Previously Presented) The apparatus of claim 14, wherein the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions.

26. (Previously Presented) The apparatus of claim 14, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

27. (Previously Presented) The apparatus of claim 14, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

28. (Previously Presented) The apparatus of claim 15, wherein the clip files associated with particular reproduction path portions are interleaved between the clip files associated with common reproduction path portions.

29. (Previously Presented) The apparatus of claim 15, wherein the clip files have a size to prevent the reproducing apparatus buffer from over-flowing during reproduction of the clip files.

30. (Previously Presented) The apparatus of claim 15, wherein the clip files have a size to prevent a reproducing apparatus buffer from under-flowing during reproduction of the clip files.

31. (New) The computer readable medium of claim 1, further comprising:

a playlist directory area for storing a plurality of playlist files, each playlist file for identifying the common reproduction path portions and the particular reproduction path portions to reproduce.

32. (New) The computer readable medium of claim 31, wherein the playlist file includes at least one indicator for indicating a reproduction order of the common and particular reproduction path portions.